

CLAIMS

What is claimed is:

1. A tire having an outer tread and an inner casing with a belt structure, the belt structure includes an overlay reinforced by parallel cords oriented circumferentially having a width W between lateral outermost edges, the overlay having a pattern of cuts within discrete segments, each segment being wrapped around the circumference of the tire and a width W between lateral edges of the respective segment and joined to adjacent segments at the lateral edges, each segment being characterized by:

a repeated pattern of cuts arranged in six rows each cut being spaced at least 100 mm from a cut in an adjacent row and being laterally offset from an adjacent segment by at least 3 mm, this distance being smaller than the cut width to ensure that each overlay cord is cut, the overlay cord lengths within the respective rows being of any length L in the range 200 to 500 mm, the cut pitch within the respective rows being of any percentage P of the tire circumference in the range 8 to 30%, the circumferential offset between two adjacent segments being of any percentage O of the tire circumference in the range of 0.5 to 2%.

2. The tire of claim 1 wherein the cut pattern has the cut pattern arranged in the six rows of 0, 53, 21, 89, 34 and 72 percent respectively of the cut pitch P of the cord relative to row R₁ and repeated within each row with the cut length L.

3. The tire of claim 1 wherein the cut pitch percentage P is 20.9%.

4. The tire of claim 3 wherein the overlay cord length L is defined by $L = P * M$ where M is the tire perimeter measured at the tire centerline in millimeter.

5A. The tire of claim 1 wherein the circumferential offset O between two adjacent segments, expressed in percentage of M, is 1.16%.

R. 12b